Feature

For a Better Earth

Contributing to the Environment through **Our Core Business Activities**

To Serve a Greater Number of Customers

Full-Fledged Expansion in Overseas Markets



Based on our core technology of automation, the azbil Group pursues safety, comfort, and fulfillment in people's lives.

We made steady progress in strengthening our management infrastructure under our medium-term plan, positioned as the "period of firmly establishing the foundation."

This section presents the initiatives of the azbil Group under the keywords "environment preservation" and "overseas business" of our new medium-term plan, which is positioned as a "period of growth."

Solving Environmental Problems with Products, Tec

Strengthening Regulations for the Prevention of Global Warming

The connection between the greenhouse effect that results from an increasing concentration of CO₂ in the atmosphere and the frequency of abnormal weather is being debated. Because of the risk that large-scale climate change will exert a significant impact on our lives and business activities, it has become an immediate and pressing issue that we must confront. Under these circumstances, at the 2009 United Nations Summit on Climate Change, the Japanese government announced it will tackle the significant reduction of CO₂ emissions. A variety of initiatives and stricter regulations are expected. Large-scale buildings and factories have been taking stringent initiatives to reduce CO₂ emissions, but more severe regulations have been put in place with the enforcement from April 2010 of the Revised Act on the Rational Use of Energy and the Tokyo Municipal Environmental Protection Ordinance.

Substantial Benefits of Improving Energy Efficiency of Office Building HVAC Systems

Although energy consumed by the industrial sector such as factories is substantial at about 45 percent of the total in Japan, there is little growth in consumption owing to a variety of energy conservation measures. Conversely, consumption by the residential/commercial sector accounts for about 31 percent of the total, which is less than for the industrial sector but growing year by year. One reason for the increase in the commercial sector is an increase in the number of large buildings due to redevelopment. Energy conservation initiatives are progressing on a building-by-building basis, but overall energy consumption is rising with the increase in gross area as the number of buildings grows, as well as needs for data centers and other IT facilities. HVAC (heating, ventilating, and air conditioning) accounts for some 40 percent of the energy consumed in commercial buildings, typified

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As the issue of global warming comes into close-up, the azbil Group makes full use of the various products, technologies, and services it has built up over many years in the Building Automation business to contribute to environmental preservation through its core business activities, while taking these societal needs as an opportunity to expand operations.



Establishing a Framework for Thorough Legal Compliance with Centralized Management of Energy Use

NAMCO BANDAI Holdings Inc. believed that accurately measuring energy usage at all its business sites would be necessary to operate appropriately and in compliance with the Revised Act on the Rational Use of Energy* and the environmental regulations of local governments where its business sites are located. However, with the group's business sites in more than 450 locations in Japan, streamlining operations and accurately gathering information were issues.

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by office buildings. We can therefore expect a substantial reduction in environmental load (CO2 emissions) from energy conservation by implementing appropriate measures based on accurate analysis of energy usage, particularly by installing more efficient HVAC equipment and systems at the time of renewal of building automation systems.

Contributing to Decreasing Environmental Load (CO₂ Emissions) While Expanding Our Operations

Fifteen to twenty years have passed since the construction of office buildings and other structures during the asset-inflation economic bubble of the early 1990s in Japan. As a result, it is time to renew the automation systems of many of those buildings. In addition, owners of large buildings as well as companies operating in offices nationwide are being urged to take countermeasures as they fall under tightened regulations.

The azbil Group has a high share of the domestic building automation market and a substantial track record of deliveries over many years. In order to respond to the aforementioned customers' needs and issues, we are preparing a varied product and service menu backed by our extensive track record and experience on site. This menu extends from ASP (Application Service Provider)-type services that monitor CO₂ emission volumes, BEMS (Building Energy Management System) for monitoring and managing energy use in buildings, and the ESCO business that provides comprehensive energy conservation services, to emissions trading. As a building automation pioneer, we at the azbil Group are supporting customers' environmental load (CO₂ emissions) reduction through our core business activities in order to contribute to the sustainable growth of society while expanding our operations.

The azbil Group's Aims for the Future

All of humanity has a stake in the vital issue of preservation of the global environment. This will require a steady and unremitting effort at every site. We have a variety of solutions that can contribute precisely to resolving environmental issues at each of these sites. Through "human-centered automation" we intend to leave a beautiful Earth for the people of the future.

To resolve these issues, the customer initially intended to install a software package. However, the substantial initial investment it would require presented problems. They decided to use Yamatake's CO₂ Management System, an ASP-type service that is advantageous in terms of cost and installation period because it offers a yearly contract option and does not require the customer to install its own server.

The customer expressed its gratitude for the results with comments including, "The fact that it can be upgraded at any time in response to changes in laws or conversion factors is appealing," "It creates greater environmental awareness by enabling comparisons across all business sites with the same units for different types of energy," and "Because we can analyze causal relationships between changes in energy efficiency and such factors as the business sites' functions and facilities, considering specific energy conservation measures is easy."

* The Revised Act on the Rational Use of Energy This law resulted from revision to the former Act on the Rational Use of Energy and is in effect from April 2010. Its scope was expanded from measurement and management of energy use at individual factories and buildings to all companies with total annual energy usage of 1,500kl or more (crude oil equivalent) at all their business sites. These companies have been required to measure and manage overall energy usage from headquarters, business sites, branches, offices, and shops since April 2009.



Feature

Turning to Overseas Markets for Further Growth

A Mature Domestic Market and Full-Fledged Expansion into Overseas Markets

In the domestic market, which accounts for the bulk of the azbil Group's sales, both the Building Automation business and Advanced Automation business are maturing as industries along with the maturation of Japanese society. To respond to these changes by creating business opportunities from changes in the social structure, the azbil Group is working to develop new business models and pioneer new business domains. Looking overseas, the azbil Group anticipates further future growth in markets such as Asia, the Middle East, and South America and expects active capital investment in a substantial number of regions.

The azbil Group will leverage the achievements and experience it has accumulated over the past 100 years in Japan for full-fledged expansion into overseas markets in order to achieve further growth.

Enhancing Our Overseas Framework to Strengthen the Solution Service Business

The azbil Group's expansion overseas goes back to the 1960s. Through a tie-up with Honeywell International Inc. of the U.S., the Advanced Automation business supplied jointly developed systems, as well as automatic control valves and various types of field instruments — manufactured independently by Yamatake (then Yamatake-Honeywell Co., Ltd.) — through plant engineering contractors and others.

Following the 1997 amendment of the agreement with Honeywell, the azbil Group established overseas subsidiaries, particularly in Asia, in order to develop businesses centered on sales of various automatic control valves and field instruments. However, the requirements of overseas customers vary by region and business. To grow as an enterprise group by appropriately responding to customer needs, we are further strength-

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As the domestic market matures, in order to achieve further growth the azbil Group is expanding into overseas markets where substantial customer needs exist. Based on its track record of delivering systems, the Group will make full use of its comprehensive capabilities to achieve growth.



Seeking a Partner to Safely Entrust an Entire Oil Refinery for the Next 15 Years

The customer on this project requested that system renewal risks and costs be minimized while preserving the operability of the distributed control system (DCS) for the paraxylene production equipment and shortening the DCS renewal period as much as possible. The customer also requested flawless support for reliable operation over the next 15 years. Moreover, it sought a partner that it could entrust with the future efficiency of the entire refinery.

ness does not simply sell specific products; rather, it combines various products and then adds high value through applications and other means to resolve individual customer issues. Over the past 10 years, the azbil Group has steadily progressed with strengthening the overseas subsidiaries needed for this busi-

ening the solution service business. The solution service busi-

ness expansion as well as their support framework in Japan, enhancing the engineering framework, and establishing maintenance centers.

Strategically Capturing Renewal Demand from Existing Customers

A major asset in accelerating and developing the solution service business is the Advanced Automation business's track record of automation systems, with more than 10,000 such systems operating worldwide today. These systems were

delivered in the 1990s and are currently going through a period of update. A wide variety now exists, particularly in Asia. System renewals by the azbil Group, based on its thorough understanding of existing application software, have the advantages of minimizing renewal expenses and risks for customers. They also enable customers to receive finely-tuned services for systems through to field instruments, which only the azbil Group can provide. As one of our solutions, we launched the azbil Global Evolution Program aimed at continuous enhancement of our customers' entire plant systems in operation (including field instruments, distributed control systems, and operation support systems) while making maximum use of existing systems. This program supports the long-term stable operation of existing plants by using an evolution approach. Honeywell took over much of the maintenance of these systems when it amended the agreement. However, the azbil Group is taking on renewal contracts of these systems again,

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The Future That the azbil Group Targets

The azbil Group will provide "human-centered automation" by creating workplaces with greater safety, comfort, and fulfillment for a greater number of customers worldwide. In doing so, the azbil Group will leverage the experience and know-how it has accumulated in its solution business in Japan in order to strengthen and expand its comprehensive solution business overseas.

renewal was delivered in 1991 by Yamatake (then Yamatake-Honeywell) via a plant engineering contractor. This project is representative of the new business that makes the most of the Group's comprehensive abilities, grounded in its track record of delivering systems.

In order to find the customer's true on-site needs and propose the most appropriate solutions, the azbil Group continued discussions with the customer to create proposals that bring together the Group's total capabilities. The azbil solutions that were particularly highly regarded include our achievement in a debottlenecking project from 1995 to 1998 that shifted the facility to DCS while continuing overall refinery operation. Another is the proposal for improvement of overall refinery efficiency with the U-OPT solution application package that optimally conserves energy for utilities. The system up for



thus comprehensively offering finely-tuned services including maintenance, which helps customers to operate their plants safely and reliably. In expanding overseas, the azbil Group is leveraging the asset of its track record of delivering systems and products to develop its solution business with its customers.

Supplying Digital Field Solutions for Customers Planning New Plants

The azbil Group aims for further growth by increasing its orders for newly constructed plants and factories based on the expertise and trust built up through renewal of systems in existing plants. Standards at new plants overseas vary, but the azbil Group has a wide range of products, from field instruments to

systems, that comply with standards worldwide.

To expand the Advanced Automation business overseas, the azbil Group delivers wide-ranging solutions, from product lineups to maintenance, as a solution provider that can resolve the various issues that arise at the customers' site, in full coordination with overseas subsidiaries.

